

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

Claims 1-8 (Cancelled)

9. (New) Device for measuring brain parameters

- having a sensor unit (1-3) that is designed in such a way that it
    - is implantable distally minimally invasively in the parenchyma and/or in the ventricles,
    - is received proximally in a fastening element (7) that is arranged centered on a base plate (6),
- wherein
- the sensor unit (1-3) is connected electrically conducting to an electronics unit (11) by means of a micro plug (10),
  - the measuring device comprises a proximal assembly comprising:
    - the fastening element (7),
    - the sections of the sensor unit (1-3) received in the fastening element (7),
    - the electronics unit (11),
    - the micro plug (10),
  - wherein the proximal assembly (1-3, 7, 10, 11) is implemented such that it is connected solidly and tightly

but removably by means of a semi-flexible cover (12) and positionable between the skull bone and scalp.

10. (New) A device according to claim 9, wherein it is subdivided into modules.

11. (New) A device according to claim 9, wherein the electronics unit (11) comprises as main components a power supply, a transmitter, a receiver, a control unit and a micro-plug socket.

12. (New) A device according to claim 9, wherein the sensor unit (1-3) comprises a catheter (1) of polymeric material and at least one sensor (2, 3) for measuring one of the group of brain pressure, temperature, CO<sub>2</sub> partial pressure, oxygen partial pressure.

13. (New) A device according to claim 12, wherein the catheter (1) contains at least one lumen for sensor components, optionally additionally at least one lumen for the drainage of fluid.

14. (New) A device according to claim 12, wherein the catheter (1) that contains a lumen for the fluid drainage is connected by means of a connection piece of the base plate to an additional catheter placed in the patient's abdominal cavity and together with the additional catheter forms a closed system.

15. (New) A device according to claim 9, wherein the electronics unit (11) is sterilizable and reusable.

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16. (New) A device according to claim 9, wherein the electronics unit (11) uses endogenous energies through utilization of one of the group of thermal elements or piezoelectronic devices or nanoturbines in the subarachnoid space.